FIG. 1

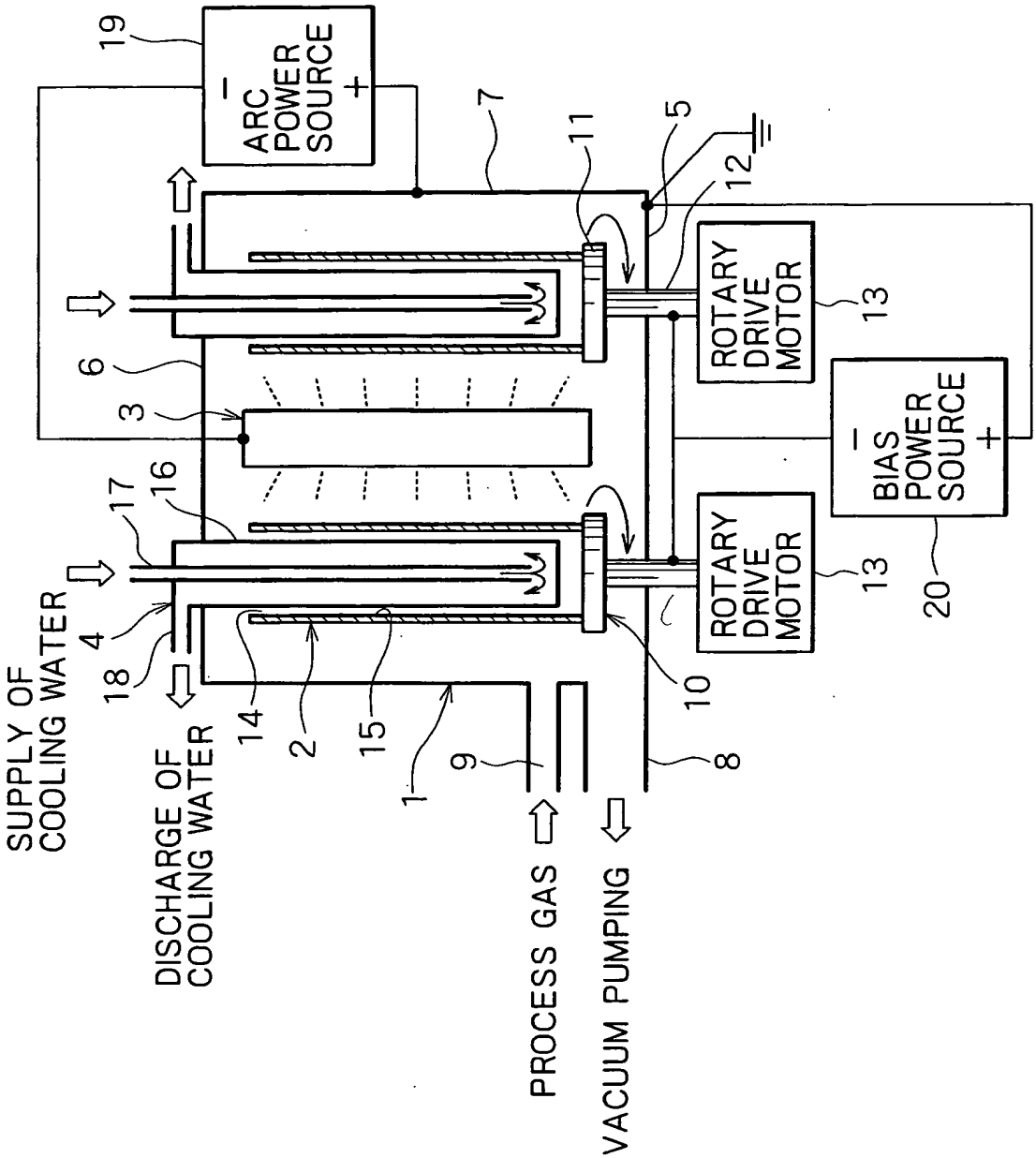

19
ARC POWER SOURCE
7
11
5
12
ROTARY DRIVE MOTOR
13
6
3
BIAS POWER SOURCE
20
16
17
4
18
SUPPLY OF COOLING WATER
DISCHARGE OF COOLING WATER
14
2
15
1
9
8
10
PROCESS GAS
VACUUM PUMPING

FIG. 2

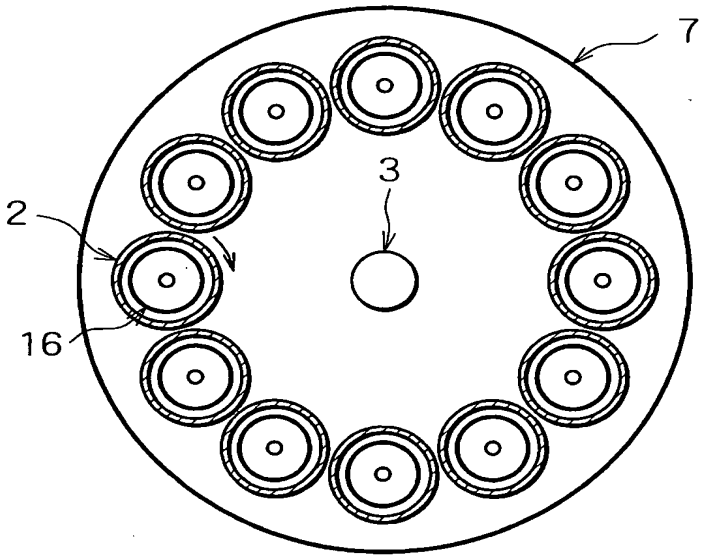


FIG. 3

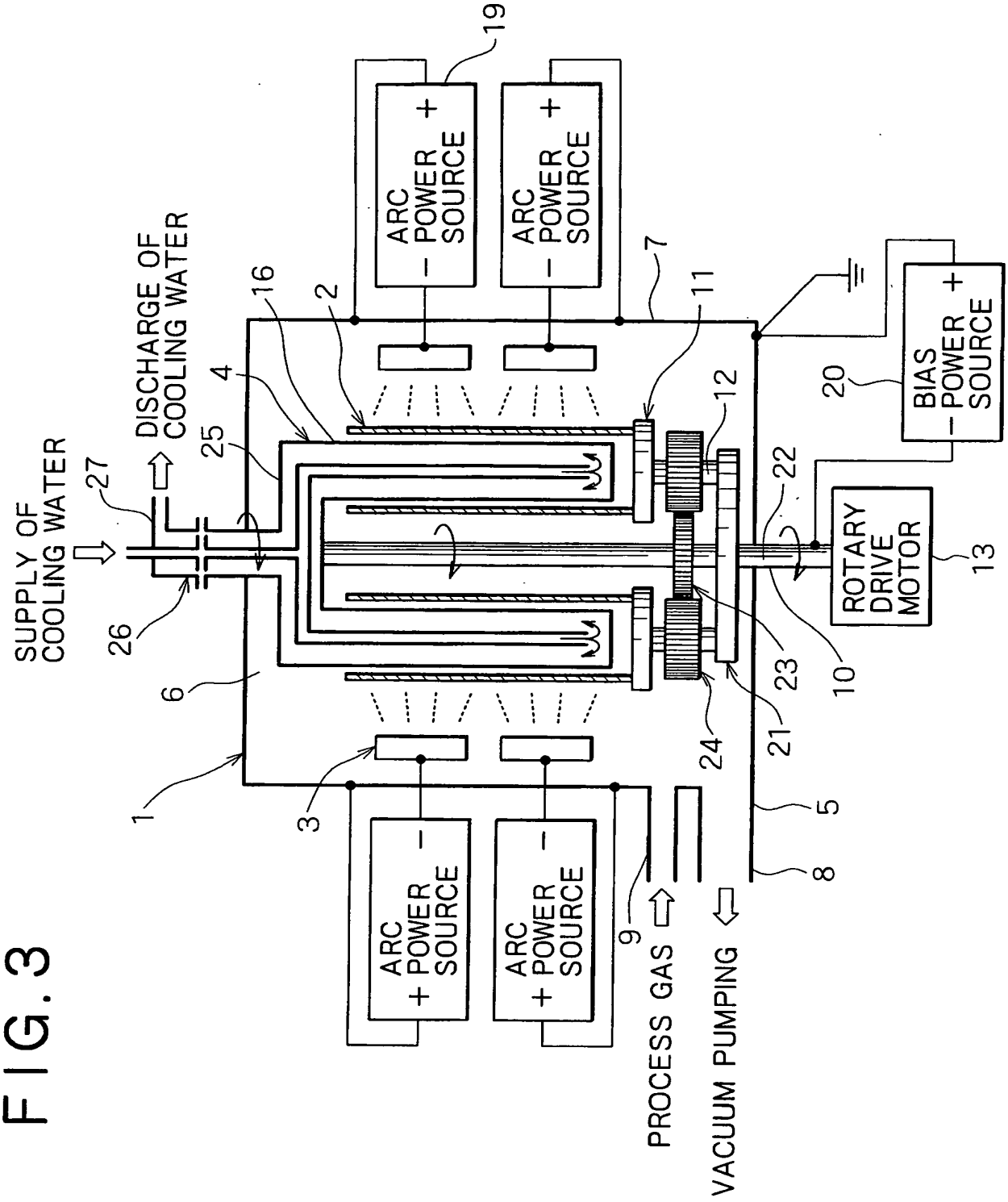
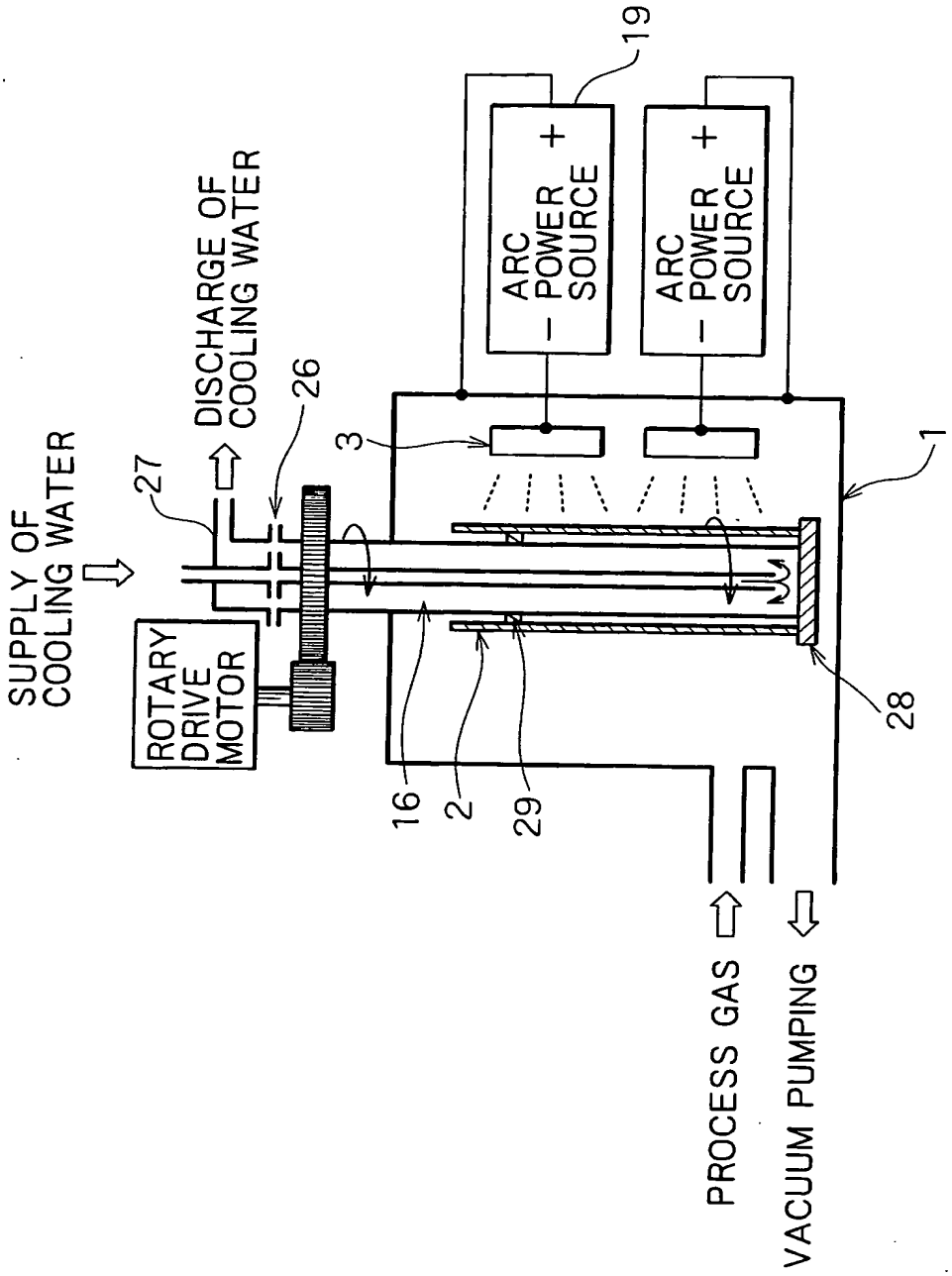

ARC POWER SOURCE
ARC POWER SOURCE
ARC POWER SOURCE
ARC POWER SOURCE
BIAS POWER SOURCE
ROTARY DRIVE MOTOR
SUPPLY OF COOLING WATER
DISCHARGE OF COOLING WATER
PROCESS GAS
VACUUM PUMPING
1
2
3
4
5
6
7
8
9
10
11
12
13
16
19
20
21
22
23
24
25
26
27

FIG. 4


19
ARC POWER SOURCE
+
−
ARC POWER SOURCE
+
−
DISCHARGE OF COOLING WATER
SUPPLY OF COOLING WATER
26
27
3
1
ROTARY DRIVE MOTOR
16
2
29
28
PROCESS GAS
VACUUM PUMPING

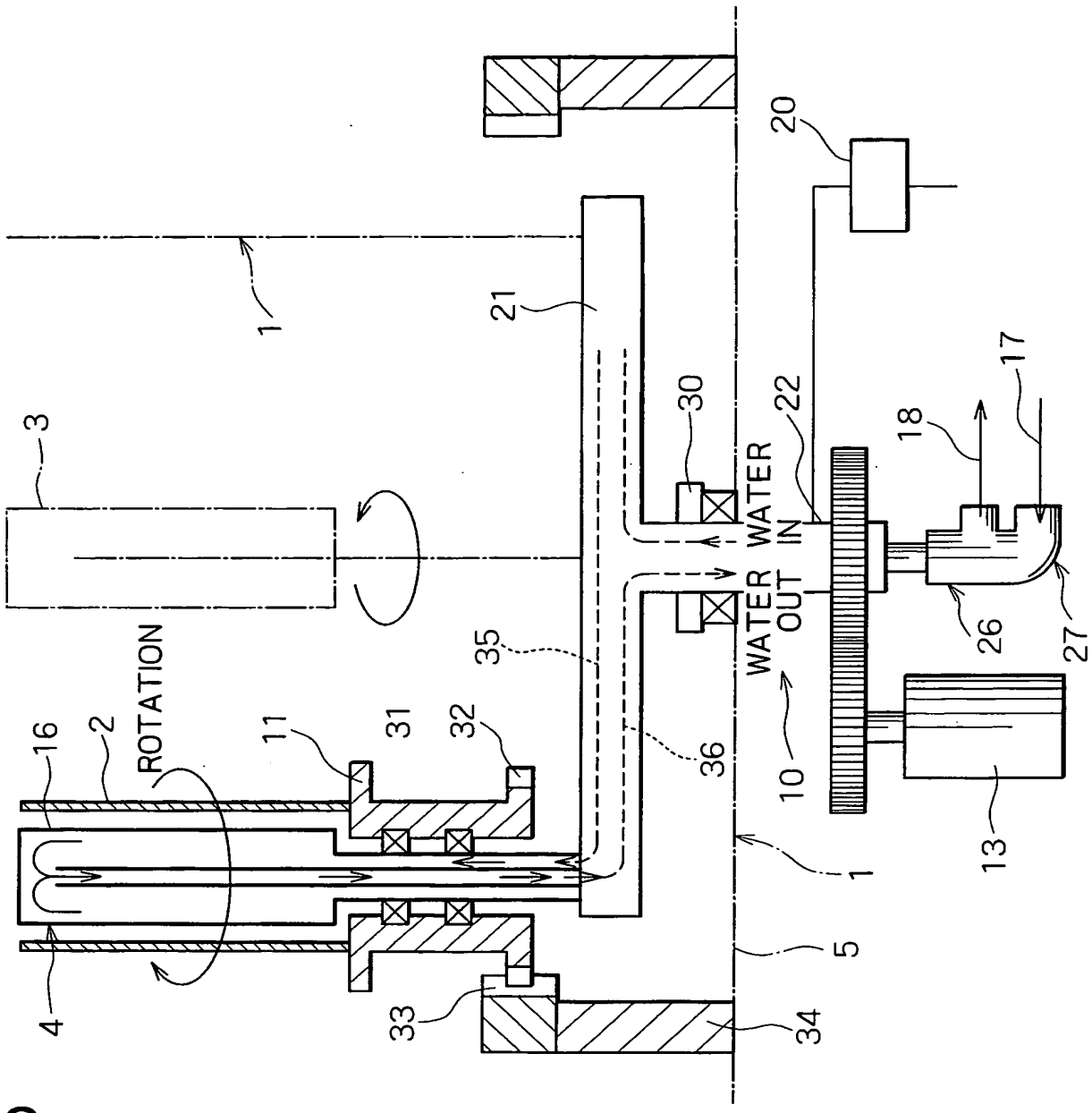

1
2
3
4
5
10
11
13
16
17
18
20
21
22
26
27
30
31
32
33
34
35
36
ROTATION
WATER IN
WATER OUT

FIG. 5

FIG. 6

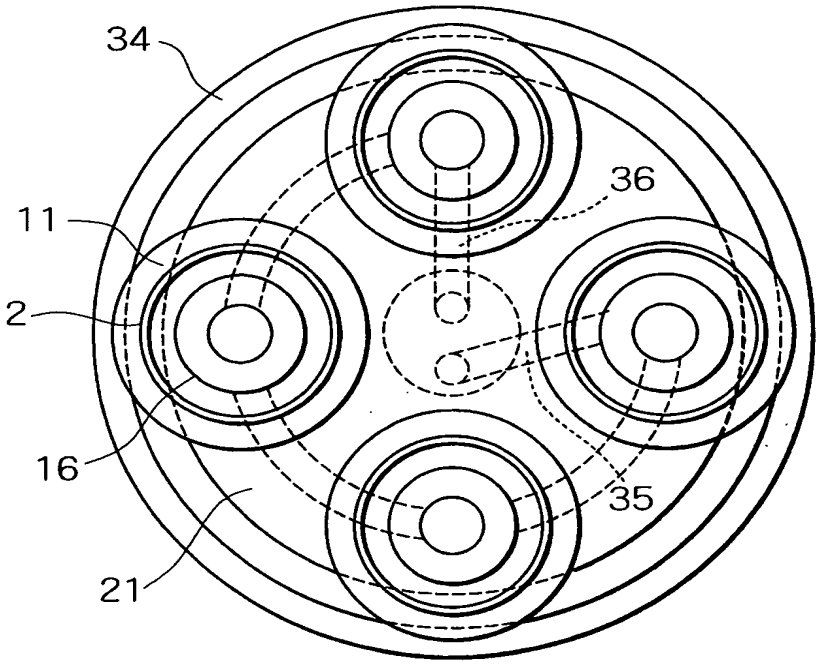


FIG. 7A

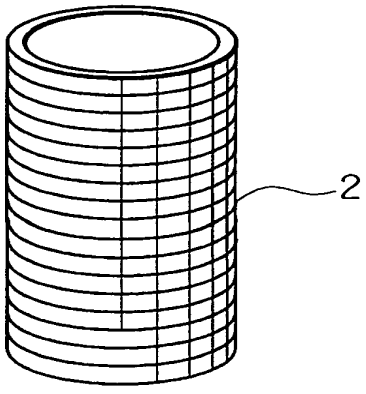
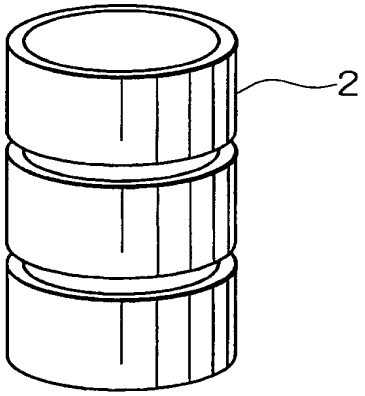



FIG. 7B